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(54) ADAPTIVE POSITIONING OF DRONES FOR ENHANCED FACE RECOGNITION

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(57)ABSTRACT

Presented herein are systems, methods and apparatuses for increasing reliability of face recognition in analysis of images captured by drone mounted imaging sensors, comprising: recognizing a target person in one or more iterations, each iteration comprising: identifying one or more positioning properties of the target person based on analysis of image(s) captured by imaging sensor(s) mounted on a drone operated to approach the target person, instructing the drone to adjust its position to an optimal facial image capturing position selected based on the positioning property (s), receiving facial image(s) of the target person captured by the imaging sensor(s), receiving a face classification associated with a probability score from machine learning model (s) trained to recognize the target person, and initiating another iteration in case the probability score does not exceed a certain threshold. Finally, the face classification may be outputted for use by one or more face recognition based systems.

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102 RECEIVE ONE OR MORE IMAGES OF A TARGET PERSON CAPTURED BY DRONE MOUNTED IMAGING SENSOR(s) ANALYZE THE IMAGE(8) TO IDENTIFY ONE OR MORE POSITIONING PROPERTIES OF THE TARGET PERSON INSTRUCT THE DRONE TO ADJUST ITS POSITIONING WITH RESPECT TO THE TARGET PERSON BASED ON THE IDENTIFIED POSITIONING PROPERTIES RECEIVE ONE OR MORE FACIAL IMAGES OF THE TARGET PERSON CAPTURED BY THE DRONE MOUNTED IMAGING SENSOR(s) 110 -PROVIDE THE FACIAL IMAGE(s) TO ONE OR MORE MACHINE LEARNING (ML) MODELS RECEIVE FROM THE ML MODEL(s), A FACE CLASSIFICATION OF THE TARGET PERSON'S FACE COUPLED WITH A CLASSIFICATION PROBABILITY SCORE PROBABILITY SCORE NO EXCEEDS THRESHOLD? YES OUTPUT THE FACE CLASSIFICATION FOR THE TARGET PERSON